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Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: polyamide
Inventors (please provide full names): Ohlman

Earliest Priority Filing Date: _____

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

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Date Searcher Picked Up: <u>4/13/03</u>		Bibliographic	Dr. Link
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L1 129 S E3
L2 24 S L1 AND PEPTIDE AND NUCLEIC ACID
L3 1961 S TATTCCGTCAT/SQSN
L4 27 S L3 AND PEPTIDE AND NUCLEIC ACID
L5 3 S L4 NOT L2
L6 27 S L2,L4
L7 1934 S L1,L3 NOT L6

Jan 2003
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FILE 'HCAPLUS' ENTERED AT 10:39:49 ON 13 APR 2003

L8 6 S L6
L9 409 S L7
L10 6 S L8,L9 AND PNA
L11 7 S L8,L9 AND PEPTIDE(S)NUCLEIC ACID
L12 9 S L10,L11
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L13 33 S E1-E33
L14 6 S L13 NOT L6

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FILE LAST UPDATED: 11 Apr 2003 (20030411/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L12 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2003 ACS
AN 2002:736375 HCAPLUS
DN 137:261875
TI Molecular vaccine linking antigen with an immunogenicity-potentiating polypeptide delivered as replication defective alphavirus replicons from stable packaging cells
IN Wu, Tzyy-Choou; Hung, Chien-Fu
PA Johns Hopkins University, USA
SO PCT Int. Appl., 93 pp.
CODEN: PIXXD2

DT Patent
 LA English
 IC ICM C12N
 CC 15-2 (Immunochemistry)
 Section cross-reference(s): 3, 14

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002074920	A2	20020926	WO 2002-US8033	20020318
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI	US 2001-276854P	P	20010316		
AB	<p>Superior mol. vaccines comprise nucleic acids in the form of PCL-generated replication-defective alphavirus replicons, preferably Sindbis virus, that encode a fusion polypeptide that includes an antigenic peptide or polypeptide against which an immune response is desired. Fused to the antigenic peptide is at least a second polypeptide that is an immunogenicity-potentiating polypeptide acting by any of a no. of mechanisms to promote immunogenicity of the antigen. Examples include intercellular spreading proteins, in particular a herpes virus protein VP22 or a homolog or functional deriv. thereof. Other examples are proteins that stimulate MHC class I processing of the antigen, target the antigen to APCs promote development and growth of immature DCs or stimulate DC antigen presenting activity. The nucleic acid can encode any antigenic epitope of interest, preferably an epitope that is processed and presented by MHC class I proteins. Antigens of pathogenic organisms and cells such as tumor cells are preferred. Vaccines comprising HPV-16 E7 oncoprotein are exemplified. Also disclosed are methods of using the vaccines to induce heightened T cell mediated immunity, in particular by cytotoxic T lymphocytes, leading to protection from or treatment of a tumor.</p>				
ST	alphavirus replicon vaccine antigen fusion protein				
IT	Animal cell line (987dlspilt#24; for packaging of replication-defective alphavirus replicons expressing antigens fused to immunogenicity-potentiating carrier proteins)				
IT	Gene, animal RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (Csf2; immunogenicity-potentiating carrier protein for antigen fusion proteins expressed by replication-defective alphavirus replicon)				
IT	Transcription factors RL: BSU (Biological study, unclassified); BIOL (Biological study) (E7; replication-defective alphavirus replicon vaccine of VP22 protein fused to)				
IT	Hemopoiетins RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (FLT3 ligand; immunogenicity-potentiating carrier protein for antigen fusion proteins expressed by replication-defective alphavirus replicon)				
IT	Heat-shock proteins RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (HSP 70; immunogenicity-potentiating carrier protein for antigen fusion proteins expressed by replication-defective alphavirus replicon)				

- IT Histocompatibility antigens
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(MHC (major histocompatibility complex), class I; replication-defective alphavirus replicons for immunization with immunogenicity-potentiating carrier proteins fused to epitope for)
- IT Antigen processing
(MHC class I pathway; replication-defective alphavirus replicons for expression of antigens fused with immunogenicity-potentiating carrier proteins targeted to)
- IT Replicon
(SINrep5; replication-defective alphavirus replicons for immunization with antigens fused with immunogenicity-potentiating carrier proteins)
- IT Proteins
RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(VP22; immunogenicity-potentiating carrier protein for antigen fusion proteins expressed by replication-defective alphavirus replicon)
- IT T cell (lymphocyte)
(cytotoxic; to E7 protein of human papillomavirus induced by replication-defective alphavirus replicon vaccine)
- IT Proteins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(endoplasmic; immunogenicity-potentiating carrier protein for antigen fusion proteins expressed by replication-defective alphavirus replicon)
- IT Blood vessel
(endothelium; replication-defective alphavirus replicons for expression of antigens fused with immunogenicity-potentiating carrier proteins targeted to)
- IT Toxins
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(exotoxin A, Pseudomonas; immunogenicity-potentiating carrier protein for antigen fusion proteins expressed by replication-defective alphavirus replicon)
- IT DNA sequences
Protein sequences
cDNA sequences
(for immunogenicity-potentiating carrier proteins for fusion antigens of vaccine replicons)
- IT Immunization
(genetic; replication-defective alphavirus replicons for immunization with antigens fused with immunogenicity-potentiating carrier proteins)
- IT Glycoproteins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(gp96; immunogenicity-potentiating carrier protein for antigen fusion proteins expressed by replication-defective alphavirus replicon)
- IT Chaperonins
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(immunogenicity-potentiating carrier protein for antigen fusion proteins expressed by replication-defective alphavirus replicon)
- IT Calreticulin
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(immunogenicity-potentiating carrier protein for antigen fusion proteins expressed by replication-defective alphavirus replicon)
- IT Antibodies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(in protective response induced by immunization with replication-defective alphavirus replicons expressing immunogenicity-potentiating carrier proteins fused to antigens)
- IT Biological transport
(intercellular; replication-defective alphavirus replicons for expression of antigens fused with immunogenicity-potentiating carrier

proteins targeted to)

IT Skin
(keratinocyte; replication-defective alphavirus replicons for expression of antigens fused with immunogenicity-potentiating carrier proteins targeted to)

IT Neuroglia
(microglia; replication-defective alphavirus replicons for expression of antigens fused with immunogenicity-potentiating carrier proteins targeted to)

IT Fusion proteins (chimeric proteins)
RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(of antigens and immunogenicity-potentiating carrier proteins expressed by replication-defective alphavirus replicon vaccines)

IT Human papillomavirus 16
(replication-defective alphavirus replicon vaccine of VP22 protein fused to E7 protein of)

IT Antigen-presenting cell
Astrocyte
B cell (lymphocyte)
Dendritic cell
Macrophage
Monocyte
(replication-defective alphavirus replicons for expression of antigens fused with immunogenicity-potentiating carrier proteins targeted to)

IT Alphavirus
Human
Semliki Forest virus
Sindbis virus
Venezuelan equine encephalitis virus
(replication-defective alphavirus replicons for immunization with antigens fused with immunogenicity-potentiating carrier proteins)

IT Epitopes
(replication-defective alphavirus replicons for immunization with immunogenicity-potentiating carrier proteins fused to)

IT neu (receptor)
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(replication-defective alphavirus replicons for immunization with immunogenicity-potentiating carrier proteins fused to)

IT Animal virus
Bacteria (Eubacteria)
(replication-defective alphavirus replicons for immunization with immunogenicity-potentiating carrier proteins fused to antigens of)

IT Vaccines
(synthetic; replication-defective alphavirus replicons for immunization with antigens fused with immunogenicity-potentiating carrier proteins)

IT Antigens
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(tumor-assocd.; replication-defective alphavirus replicons for immunization with immunogenicity-potentiating carrier proteins fused to)

IT Vaccines
(tumor; replication-defective alphavirus replicons for immunization with antigens fused with immunogenicity-potentiating carrier proteins)

IT Antitumor agents
(vaccines; replication-defective alphavirus replicons for immunization with antigens fused with immunogenicity-potentiating carrier proteins)

IT Tubulins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(.gamma.-; immunogenicity-potentiating carrier protein for antigen fusion proteins expressed by replication-defective alphavirus replicon)

IT 463422-86-8 463422-88-0, 1-301-Protein VP22 (human herpesvirus 1)
463422-90-4, Protein VP22 (Gallid herpesvirus 2) 463422-92-6

463422-94-8, 1-189-FLT3 ligand (mouse)
 RL: BSU (Biological study, unclassified); PRP (Properties); THU
 (Therapeutic use); BIOL (Biological study); USES (Uses)
 (amino acid sequence; immunogenicity-potentiating carrier protein for
 antigen fusion proteins expressed by replication-defective alphavirus
 replicon)

IT 83869-56-1, Colony-stimulating factor 2
 RL: BSU (Biological study, unclassified); PRP (Properties); THU
 (Therapeutic use); BIOL (Biological study); USES (Uses)
 (immunogenicity-potentiating carrier protein for antigen fusion
 proteins expressed by replication-defective alphavirus replicon)

IT 139815-46-6, GenBank X05906 140538-28-9, GenBank M23348 175008-45-4,
 GenBank AL123456 190307-00-7, GenBank Z95324 384438-30-6, GenBank
 K01397 389180-54-5, GenBank X02333
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
 (Biological study)
 (mol. vaccine linking antigen with an immunogenicity-potentiating
 polypeptide delivered as replication defective alphavirus replicons
 from stable packaging cells)

IT 463422-87-9 463422-89-1 463422-91-5 463422-93-7 463422-95-9
 RL: BSU (Biological study, unclassified); PRP (Properties); THU
 (Therapeutic use); BIOL (Biological study); USES (Uses)
 (nucleotide sequence; immunogenicity-potentiating carrier protein for
 antigen fusion proteins expressed by replication-defective alphavirus
 replicon)

IT 244283-56-5 463347-85-5 463347-86-6 463424-46-6 463424-47-7
 463424-48-8 463424-49-9 463424-50-2 463424-51-3 463424-52-4
 463424-53-5 463424-54-6 463424-55-7 463424-56-8 **463424-57-9**
 463424-58-0 463424-59-1 463424-60-4 463424-61-5 463424-62-6
 463424-63-7 463424-64-8 463424-65-9 463424-66-0 463424-67-1
 463424-68-2 463424-69-3 463424-70-6 463424-71-7
 RL: PRP (Properties)
 (unclaimed sequence; mol. vaccine linking antigen with an
 immunogenicity-potentiating polypeptide delivered as replication
 defective alphavirus replicons from stable packaging cells)

L12 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2003 ACS
 AN 2002:595035 HCAPLUS
 DN 137:168254
 TI Superior molecular vaccine based on self-replicating RNA, suicidal DNA or
 naked DNA vector, that links antigen with polypeptide that promotes
 antigen presentation for treating cancer and infections
 IN Wu, Tzyy-Chouu; Hung, Chien-Fu
 PA The Johns Hopkins University, USA
 SO PCT Int. Appl., 127 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM C12Q
 CC 15-2 (Immunochemistry)
 Section cross-reference(s): 1, 3, 8, 63
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002061113	A2	20020808	WO 2002-US2598	20020201
WO 2002061113	A3	20021212		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
 CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
 PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
 UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
 TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2001-265334P P 20010201

AB Improved mol. vaccines comprise **nucleic acid** vectors that encode a fusion polypeptide that includes polypeptide or **peptide** phys. linked to an antigen. The linked polypeptide is one that (a) promotes processing of the expressed fusion polypeptide via the MHC class I pathway and/or (b) promotes development or activity of antigen presenting cells, primarily dendritic cells. These vaccines employ one of several types of nucleic acid vectors, each with its own relative advantages: naked DNA plasmids, self-replicating RNA replicons and suicidal DNA-based on viral RNA replicons. Administration of such a vaccine results in enhance immune responses, primarily those mediated by CD8+ cytotoxic T lymphocytes, directed against the immunizing antigen part of the fusion polypeptide. Such vaccines are useful against tumor antigens, viral antigens and antigens of other pathogenic microorganisms and can be used in the prevention or treatment of diseases that include cancer and infections.

ST vector vaccine pathogen tumor antigen E7 Hsp70 Flt3 ligand; Mycobacterium tuberculosis Hsp70 human papilloma virus E7

IT Gene, microbial
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(E7, from HPV; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)

IT Transcription factors
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(E7; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)

IT Hemopoietins
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(FLT3 ligand; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)

IT Heat-shock proteins
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(HSP 70; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)

IT Histocompatibility antigens
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(MHC (major histocompatibility complex), class I; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)

IT Transcription factors
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Rb; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)

IT Replicon
(SINrep5; superior mol. vaccine based on self-replicating RNA, suicidal

- DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)
- IT Particles
(bombardment; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)
- IT T cell (lymphocyte)
(cytotoxic; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)
- IT Blood vessel
(endothelium, activated cells of; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)
- IT Glycoproteins
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(gp100; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)
- IT Glycoproteins
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(gp75; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)
- IT Gene, microbial
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hsp70, from Mycobacterium tuberculosis; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)
- IT Drug delivery systems
(injections, i.m.; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)
- IT Drug delivery systems
(injections, s.c.; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)
- IT Drug delivery systems
(intradermal; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)
- IT Drug delivery systems
(intratumoral; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)
- IT Skin
(keratinocyte; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)
- IT Chemicals
(linker; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)
- IT Peptides, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(linker; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that

- promotes antigen presentation for treating cancer and infections)
- IT Antigens
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(melanoma-assocd., BAGE; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)
- IT Antigens
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(melanoma-assocd., GAGE-1; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)
- IT Antigens
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(melanoma-assocd., GAGE-2; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)
- IT Antigens
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(melanoma-assocd., MAGE-1; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)
- IT Antigens
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(melanoma-assocd., MAGE-3; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)
- IT Antigens
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(melanoma-assocd., MART-1/Melan-A; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)
- IT Antigens
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(melanoma-assocd.; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)
- IT Neuroglia
(microglia, cells; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)
- IT p53 (protein)
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(mutant; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)
- IT Plasmids
(naked DNA; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)

IT DNA
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(naked; plasmid; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)

IT Proteins
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(p15; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)

IT Plasmid vectors
(pSCA1; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)

IT Plasmids
(pcDNA3; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)

IT Drug delivery systems
(peritumoral; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)

IT Genetic element
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(regulatory; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)

IT RNA
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(replicon; self-replicating; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)

IT Viral RNA
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(replicons; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)

IT Genetic vectors
(suicidal DNA; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)

IT DNA
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(suicidal; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)

IT Adenoviridae
Alphavirus
Animal
Animal cell
Animal virus
Antigen-presenting cell
Antitumor agents
Astrocyte
B cell (lymphocyte)
Bacteria (Eubacteria)
Bordetella pertussis
Brucella melitensis

CD8-positive T cell
 Chemotherapy
 Chlamydia pneumoniae
 Chlamydia trachomatis
 DNA sequences
 Dendritic cell
 Drug delivery systems
 Ehrlichia chaffeensis
 Epitopes
 Eukaryota
 Fungi
 Genetic vectors
 Herpesviridae
 Human
 Human adenovirus
 Human herpesvirus
 Human papillomavirus
 Human papillomavirus 16
 Infection
 Legionella pneumophila
 Linking agents
 Listeria monocytogenes
 Macrophage
 Molecular cloning
 Monocyte
 Mycobacterium avium
 Mycobacterium tuberculosis
 Nucleic acid hybridization
 Paracoccidioides brasiliensis
 Pathogen
 Plasmid vectors
 Plasmids
 Plasmodium falciparum
 Protein sequences
 Radiotherapy
 Retroviridae
 Rickettsia rickettsi
 Salmonella enterica
 Semliki Forest virus
 Sindbis virus
 Staphylococcus aureus
 Toxoplasma gondii
 Vaccines
 Viral vectors

(superior mol. vaccine based on self-replicating RNA, suicidal DNA or
 naked DNA vector, that links antigen with polypeptide that promotes
 antigen presentation for treating cancer and infections)

IT Fusion proteins (chimeric proteins)

Gene, microbial

Nucleic acids

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
 PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
 (Preparation); USES (Uses)

(superior mol. vaccine based on self-replicating RNA, suicidal DNA or
 naked DNA vector, that links antigen with polypeptide that promotes
 antigen presentation for treating cancer and infections)

IT Antigens

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
 THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
 (Uses)

(superior mol. vaccine based on self-replicating RNA, suicidal DNA or
 naked DNA vector, that links antigen with polypeptide that promotes
 antigen presentation for treating cancer and infections)

IT Antibodies
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (superior mol. vaccine based on self-replicating RNA, suicidal DNA or
 naked DNA vector, that links antigen with polypeptide that promotes
 antigen presentation for treating cancer and infections)

IT neu (receptor)
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (superior mol. vaccine based on self-replicating RNA, suicidal DNA or
 naked DNA vector, that links antigen with polypeptide that promotes
 antigen presentation for treating cancer and infections)

IT Antigens
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
 THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
 (Uses)
 (tumor-assocd.; superior mol. vaccine based on self-replicating RNA,
 suicidal DNA or naked DNA vector, that links antigen with polypeptide
 that promotes antigen presentation for treating cancer and infections)

IT Antigens
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
 THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
 (Uses)
 (tumor-specific antigens; superior mol. vaccine based on
 self-replicating RNA, suicidal DNA or naked DNA vector, that links
 antigen with polypeptide that promotes antigen presentation for
 treating cancer and infections)

IT Vaccines
 (tumor; superior mol. vaccine based on self-replicating RNA, suicidal
 DNA or naked DNA vector, that links antigen with polypeptide that
 promotes antigen presentation for treating cancer and infections)

IT Antitumor agents
 (vaccines; superior mol. vaccine based on self-replicating RNA,
 suicidal DNA or naked DNA vector, that links antigen with polypeptide
 that promotes antigen presentation for treating cancer and infections)

IT 446078-30-4P 446078-32-6P 446078-34-8P 446078-36-0P 446078-38-2P
 446078-40-6P
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
 PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
 (Preparation); USES (Uses)
 (amino acid sequence; superior mol. vaccine based on self-replicating
 RNA, suicidal DNA or naked DNA vector, that links antigen with
 polypeptide that promotes antigen presentation for treating cancer and
 infections)

IT 401887-51-2P, DNA (synthetic plasmid vector pcDNA3) 446078-29-1P, DNA
 (human papillomavirus gene E7) 446078-31-5P 446078-33-7P
 446078-35-9P 446078-37-1P 446078-39-3P **446078-41-7P**
 446078-42-8P 446078-43-9P **446078-44-0P**, DNA (synthetic vector
 SINrep5-E7-Hsp70) 446078-45-1P 446078-46-2P
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
 PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
 (Preparation); USES (Uses)
 (nucleotide sequence; superior mol. vaccine based on self-replicating
 RNA, suicidal DNA or naked DNA vector, that links antigen with
 polypeptide that promotes antigen presentation for treating cancer and
 infections)

IT 7440-57-5, Gold, biological studies
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (particle bombardment; superior mol. vaccine based on self-replicating
 RNA, suicidal DNA or naked DNA vector, that links antigen with
 polypeptide that promotes antigen presentation for treating cancer and
 infections)

IT 190307-00-7P, GenBank Z95324

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)

IT 9002-10-2P, Tyrosinase
 RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)

IT 83588-90-3
 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)

IT 446078-94-0, 5: PN: WO02061113 SEQID: 5 unclaimed DNA 446078-95-1
 446078-97-3 446078-98-4 446078-99-5 446079-00-1 446079-01-2
 446079-02-3 446079-03-4
 RL: PRP (Properties)
 (unclaimed nucleotide sequence; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)

IT 446078-96-2
 RL: PRP (Properties)
 (unclaimed protein sequence; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)

IT 151812-18-9
 RL: PRP (Properties)
 (unclaimed sequence; superior mol. vaccine based on self-replicating RNA, suicidal DNA or naked DNA vector, that links antigen with polypeptide that promotes antigen presentation for treating cancer and infections)

L12 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:780930 HCAPLUS

DN 135:331678

TI Methods for preparing phosphorylated **peptide nucleic acids** carrying one or more marker, crosslinking, intracellular uptake, or binding affinity groups

IN Uhlmann, Eugen; Breipohl, Gerhard; Will, David William

PA Aventis Pharma Deutschland G.m.b.H., Germany

SO PCT Int. Appl., 96 pp.

CODEN: PIXXD2

DT Patent

LA German

IC ICM C07H021-00

CC 34-3 (Amino Acids, Peptides, and Proteins)

Section cross-reference(s): 33

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001079249	A2	20011025	WO 2001-EP4027	20010407
	WO 2001079249	A3	20020328		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,			

LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,
 RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN,
 YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
 DE 10019136 A1 20011031 DE 2000-10019136 20000418
 BR 2001010111 A 20030211 BR 2001-10111 20010407
 EP 1282639 A2 20030212 EP 2001-919443 20010407
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
 US 2003022172 A1 20030130 US 2001-835370 20010417
 NO 2002004960 A 20021112 NO 2002-4960 20021015
 PRAI DE 2000-10019136 A 20000418
 WO 2001-EP4027 W 20010407
 AB The invention relates to **PNA** derivs. which carry a phosphoryl
 radical on the N terminus of the **PNA** backbone, for example a
 phosphate or a substituted phosphoryl radical, substituted phosphoryl
 derives optionally carrying one or more marker groups or groups for
 crosslinking or groups which favor intracellular take-up or groups which
 increase the binding affinity of the **PNA** deriv. to nucleic
 acids. The invention also relates to a method for producing the
 aforementioned **PNA** derivs. and to their use as medicaments and
 diagnostic agents. Thus, several **PNA** chains were prepd. using
 solid phase peptide synthesis techniques, in which the C-terminal was
 capped by NH(CH₂)₆OH and the N-terminal H₂N- group was replaced by HO-,
 and functionalized to H₂O₃PO- or ROP(O)(OH)O- (R = biotin or fluorescein
 tag group or alkyl cap). Hybridization tests with complementary DNA or
 RNA showed increased binding, compared to a normal **PNA** chain
 N-capped with H₃CC(O)- and C-capped with NH(CH₂)₆OH. In vitro cellular
 uptake studies were done with fluorescein-tagged **PNA** (no data).
 In vitro cell proliferation studies were done with a H₃C(CH₂)₁₅OP(O)(OH)-
 capped **PNA** using human pre-B leukemia cells or A549-tumor cells
 (no data).
 ST **PNA** deriv prepn antiviral antimicrobial antitumor diagnostic
 hybridization
 IT Diagnosis
 (agents; prepn. of **PNA** derivs. as therapeutic or diagnostic
 agents)
 IT Solid phase synthesis
 (peptide; prepn. of **PNA** derivs. as therapeutic or diagnostic
 agents)
 IT Antimicrobial agents
 Antitumor agents
 Antiviral agents
 Biosensors
 Nucleic acid hybridization
 (prepn. of **PNA** derivs. as therapeutic or diagnostic agents)
 IT **Peptide nucleic acids**
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT
 (Reactant or reagent); USES (Uses)
 (prepn. of **PNA** derivs. as therapeutic or diagnostic agents)
 IT **368944-36-9P**
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT
 (Reactant or reagent); USES (Uses)
 (prepn. of **PNA** derivs. as therapeutic or diagnostic agents)
 IT **368944-38-1P 368944-39-2P 368944-40-5P**
368944-41-6P 368944-42-7P 368944-43-8P
368944-44-9P 368944-45-0P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of **PNA** derivs. as therapeutic or diagnostic agents)

IT **368506-25-6P 368944-35-8P 368944-37-0P**
 RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use);
 BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent);
 USES (Uses)
 (prepn. of **PNA** derivs. as therapeutic or diagnostic agents)

IT 367255-38-7P 367255-39-8P 367985-52-2P 367985-53-3P 367985-54-4P
 367985-55-5P 368506-26-7P 368506-27-8P 368506-28-9P 368506-29-0P
 368506-30-3P 368506-31-4P 368944-46-1P
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
 study); PREP (Preparation); USES (Uses)
 (prepn. of **PNA** derivs. as therapeutic or diagnostic agents)

IT 110616-00-7 **116364-61-5** 147178-75-4 159845-57-5
 169025-57-4, GenBank AR029142 181988-02-3 181988-09-0 185831-42-9
 186070-79-1, GenBank A42375 186071-78-3 186108-31-6, 3: PN: WO0004034
 SEQID: 3 unclaimed DNA 186123-93-3, GenBank A44395 186162-52-7
 186162-55-0, GenBank A42368 189356-60-3 195184-07-7, GenBank A42342
 195184-11-3, GenBank A42347 195184-12-4 195184-14-6, GenBank A42351
 195184-15-7, GenBank A42352 195184-16-8, GenBank A44386 195184-17-9,
 GenBank A42354 195184-18-0, GenBank A42355 195184-19-1, GenBank A42356
 195184-20-4, GenBank A42357 195184-21-5, GenBank A42358 195184-22-6,
 GenBank A42359 195184-23-7, GenBank A42361 195184-24-8, GenBank A42362
 195184-25-9, GenBank A42363 195184-26-0, GenBank A47186 195184-27-1
 195184-28-2, GenBank A47179 197103-72-3 197831-18-8 246223-25-6
 257601-47-1, GenBank AX283184 325605-36-5, GenBank AX283169
 325605-37-6, GenBank AX283174 325605-38-7 325605-39-8 325605-40-1
 325605-41-2 325605-42-3 325605-43-4 325605-44-5 325605-45-6
 325605-46-7 325605-47-8 325605-48-9 325605-49-0 325605-50-3
 325605-51-4 325605-52-5 368952-79-8 368952-80-1 368952-81-2
 368952-82-3 368952-83-4 368952-84-5 368952-85-6
 RL: PRP (Properties)
 (unclaimed nucleotide sequence; methods for prepg. phosphorylated
peptide nucleic acids carrying one or more
 marker, crosslinking, intracellular uptake, or binding affinity groups)

IT 81742-60-1 143189-17-7
 RL: PRP (Properties)
 (unclaimed sequence; methods for prepg. phosphorylated **peptide**
nucleic acids carrying one or more marker,
 crosslinking, intracellular uptake, or binding affinity groups)

L12 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:780897 HCAPLUS

DN 135:331677

TI Methods for preparing phosphorylated **peptide nucleic**
acids carrying one or more marker, crosslinking, intracellular
 uptake, or binding affinity groups

IN Uhlmann, Eugen; Breipohl, Gerhard; Will, David William

PA Aventis Pharma Deutschland G.m.b.H., Germany

SO PCT Int. Appl., 93 pp.

CODEN: PIXXD2

DT Patent

LA German

IC ICM C07H

CC 34-3 (Amino Acids, Peptides, and Proteins)

Section cross-reference(s): 6, 33, 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001079216	A2	20011025	WO 2001-EP4030	20010407
	WO 2001079216	A3	20020228		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
 CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,

HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
 LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,
 RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN,
 YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
 DE 10019135 A1 20011031 DE 2000-10019135 20000418
 AU 2001054795 A5 20011030 AU 2001-54795 20010407
 EP 1276760 A2 20030122 EP 2001-927897 20010407
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
 BR 2001010110 A 20030211 BR 2001-10110 20010407
 US 2002187473 A1 20021212 US 2001-835371 20010417
 NO 2002004959 A 20021015 NO 2002-4959 20021015
 PRAI DE 2000-10019135 A 20000418
 WO 2001-EP4030 W 20010407
 OS MARPAT 135:331677
 AB The invention relates to **PNA** derivs. that carry one or more
 phosphoryl groups at the C terminus or at the C and N terminus of the
PNA backbone, said phosphoryl groups optionally carrying one or
 more marker groups, or groups for crosslinking, or groups that promote the
 intracellular uptake, or groups that improve the binding affinity of the
PNA deriv. to nucleic acids. The invention further relates to a
 method for producing the above **PNA** derivs. and to the use
 thereof as a medicament or diagnostic agent. Thus, title compd.
CH3(CH2)15OP(O)(OH)-T(oeg)[ATTCCGTCAT](CH2)6NHP(O)(OH)O-CH2CH(CH2OH)(CH2)4NHC(S)NH-fluorescein(I)[T(oeg)=O(CH2)2N(C(O)CH2-Base)CH2C(O)-; remainder of chain = normal peptide nucleic acid backbone] was prepd. using solid-phase
peptide synthesis techniques. Hybridization tests of I with
 complementary DNA and RNA showed better complexation with DNA than with
 RNA, though both were stronger than with **PNA**
 Ac-NH-TATTCGTCAT-(CH2)6NH2 ref. In vitro cell proliferation studies
 using I and human pre-B leukemia cells showed stronger inhibition than a
 known phosphorothioate oligonucleotide (no data).
 ST **PNA** deriv prepn antiviral antimicrobial antitumor diagnostic
 hybridization
 IT Diagnosis
 (agents; prepn. of **PNA** derivs. as therapeutic or diagnostic
 agents)
 IT Solid phase synthesis
 (peptide; prepn. of **PNA** derivs. as therapeutic or diagnostic
 agents)
 IT Antimicrobial agents
 Antitumor agents
 Antiviral agents
 Biosensors
 Nucleic acid hybridization
 (prepn. of **PNA** derivs. as therapeutic or diagnostic agents)
 IT **Peptide nucleic acids**
 RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic
 preparation); THU (Therapeutic use); BIOL (Biological study); PREP
 (Preparation); RACT (Reactant or reagent); USES (Uses)
 (prepn. of **PNA** derivs. as therapeutic or diagnostic agents)
 IT **368505-39-9P**
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT
 (Reactant or reagent); USES (Uses)
 (prepn. of **PNA** derivs. as therapeutic or diagnostic agents)
 IT **367985-20-4P 367985-21-5P 367985-22-6P**
367985-23-7P

RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of **PNA** derivs. as therapeutic or diagnostic agents)

IT **367985-17-9P 367985-19-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of **PNA** derivs. as therapeutic or diagnostic agents)

IT **367985-18-0P 368505-37-7P 368505-38-8P 368505-40-2P**
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of **PNA** derivs. as therapeutic or diagnostic agents)

IT 110616-00-7 **116364-61-5** 147178-75-4 159845-57-5
169025-57-4, GenBank AR029142 181988-02-3 181988-09-0 186070-79-1,
GenBank A42375 186071-78-3 186108-31-6, 3: PN: WO0004034 SEQID: 3
unclaimed DNA 186123-93-3, GenBank A44395 186162-52-7 186162-55-0,
GenBank A42368 189356-60-3 195184-07-7, GenBank A42342 195184-11-3,
GenBank A42347 195184-12-4 195184-14-6, GenBank A42351 195184-15-7,
GenBank A42352 195184-16-8, GenBank A44386 195184-17-9, GenBank A42354
195184-18-0, GenBank A42355 195184-19-1, GenBank A42356 195184-20-4,
GenBank A42357 195184-21-5, GenBank A42358 195184-22-6, GenBank A42359
195184-23-7, GenBank A42361 195184-24-8, GenBank A42362 195184-25-9,
GenBank A42363 195184-26-0, GenBank A47186 195184-27-1 195184-28-2,
GenBank A47179 197831-18-8 246223-25-6 257601-47-1, GenBank AX283184
325605-36-5, GenBank AX283169 325605-37-6, GenBank AX283174
325605-38-7 325605-39-8 325605-40-1 325605-41-2 325605-42-3
325605-43-4 325605-44-5 325605-45-6 325605-46-7 325605-47-8
325605-48-9 325605-49-0 325605-50-3 325605-51-4 325605-52-5
RL: PRP (Properties)
(unclaimed nucleotide sequence; methods for prepg. phosphorylated
peptide nucleic acids carrying one or more
marker, crosslinking, intracellular uptake, or binding affinity groups)

L12 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2003 ACS

AN 1999:311115 HCAPLUS

DN 131:9617

TI Liposomal oligonucleotide compositions for modulating ras gene expression

IN Hardee, Gregory E.; Geary, Richard S.; Levin, Arthur; Templin, Michael V.;
Howard, Randy; Mehta, Rahul C.

PA Isis Pharmaceuticals, Inc., USA

SO PCT Int. Appl., 120 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K048-00

ICS C07H021-04; C07H021-02; C12N015-11

CC 63-5 (Pharmaceuticals)

Section cross-reference(s): 1, 33

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	WO 9922772	A1	19990514	WO 1998-US22821	19981028
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	US 6083923	A	20000704	US 1997-961469	19971031
	AU 9911246	A1	19990524	AU 1999-11246	19981028
PRAI	US 1997-961469	A2	19971031		

WO 1998-US22821 W 19981028

AB Pharmaceutical compns. comprising liposomes contg. antisense oligonucleotides are provided for the modulation of expression of the human ras gene in both the normal (wildtype) and activated (mutant) forms. The prepn. of the invention, e.g., those contg. ISIS 2503, may be used in treatment of ras-assocd. cancers.

ST liposome antitumor phosphorothioate oligonucleotide ras gene

IT Gene, animal
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 (N-ras, human; liposomal oligonucleotide compns. for modulating ras gene expression)

IT Gene, animal
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 (c-Ha-ras, human; liposomal oligonucleotide compns. for modulating ras gene expression)

IT Gene, animal
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 (c-Ki-ras, human; liposomal oligonucleotide compns. for modulating ras gene expression)

IT Intestine
 (colon; liposomal oligonucleotide compns. for modulating ras gene expression)

IT Kidney
 (cortex; liposomal oligonucleotide compns. for modulating ras gene expression)

IT Mutation
 (in ras gene; liposomal oligonucleotide compns. for modulating ras gene expression)

IT Antitumor agents
 Brain
 Heart
 Liver
 Lung
 Lymph node
 Nucleic acid hybridization
 Ovary
 Pancreas
 Pharmacokinetics
 Prostate gland
 Skin
 Spleen
 (liposomal oligonucleotide compns. for modulating ras gene expression)

IT Oligonucleotides
Peptide nucleic acids
 Phosphorothioate oligonucleotides
 RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (liposomal oligonucleotide compns. for modulating ras gene expression)

IT Glycolipids
 Phosphatidylcholines, biological studies
 Phosphatidylethanolamines, biological studies
 Phospholipids, biological studies
 Polyoxyalkylenes, biological studies
 Sphingomyelins
 RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (liposomal oligonucleotide compns. for modulating ras gene expression)

IT Drug delivery systems
 (liposomes; liposomal oligonucleotide compns. for modulating ras gene

expression)

IT Kidney
(medulla; liposomal oligonucleotide compns. for modulating ras gene expression)

IT Ras proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(nucleic acids encoding; liposomal oligonucleotide compns. for modulating ras gene expression)

IT mRNA
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(ras protein-specifying; liposomal oligonucleotide compns. for modulating ras gene expression)

IT Gene, animal
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(ras; liposomal oligonucleotide compns. for modulating ras gene expression)

IT Genetic element
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(translation initiation site; liposomal oligonucleotide compns. for modulating ras gene expression)

IT Polymers, biological studies
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(water-sol.; liposomal oligonucleotide compns. for modulating ras gene expression)

IT 149957-14-2, ISIS 2503
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(liposomal oligonucleotide compns. for modulating ras gene expression)

IT 2644-64-6, Dipalmitoylphosphatidylcholine 4537-76-2, Distearoyl phosphatidylethanolamine 4539-70-2, Distearoylphosphatidylcholine 25322-68-3 37758-47-7, Ganglioside gml
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(liposomal oligonucleotide compns. for modulating ras gene expression)

IT 149594-04-7, ISIS 2570 149957-04-0, ISIS 2569 149957-05-1, ISIS 3426 149957-06-2, ISIS 3427 149957-07-3, ISIS 3428 149957-08-4, ISIS 3429 149957-09-5, ISIS 2571 149957-10-8, ISIS 2566 149957-11-9, ISIS 2560 149957-12-0, ISIS 2561 **149957-13-1**, ISIS 2502 151500-77-5, ISIS 3975 151500-78-6, ISIS 3979 151500-79-7, ISIS 3980 151500-80-0, ISIS 3985 151500-81-1, ISIS 3984 156988-43-1, ISIS 4998 157093-13-5, ISIS 5122 157093-27-1, ISIS 4248 157093-28-2, ISIS 4546 157093-29-3, ISIS 4551 157093-30-6, ISIS 4593 157093-31-7, ISIS 4606 157093-32-8, ISIS 4241 165889-42-9, ISIS 7453 183451-56-1, ISIS 6957 **215953-83-6**, ISIS 6186 215953-86-9, ISIS 2907 215953-92-7, ISIS 4242 215953-94-9, ISIS 4236 215953-95-0, ISIS 4122 215953-96-1, ISIS 4230 215953-98-3, ISIS 4276 215953-99-4, ISIS 4278 215954-00-0, ISIS 4229 215954-05-5, ISIS 4226 215954-08-8, ISIS 6958 215954-09-9, ISIS 6956 215954-10-2, ISIS 6950 215954-11-3, ISIS 6949 215954-13-5, ISIS 6948 215954-14-6, ISIS 6945 215954-15-7, ISIS 7679 216008-65-0, ISIS 4245 216008-68-3, ISIS 4233 216008-72-9, ISIS 14896 216008-74-1, ISIS 14898 216008-75-2, ISIS 14900 216008-76-3, ISIS 14897 216008-77-4, ISIS 14899 216008-78-5, ISIS 13920 220102-83-0, ISIS 4247 220102-86-3, ISIS 13905 220102-87-4, ISIS 13907 220102-88-5, ISIS 13909 220102-89-6, ISIS 13911 220102-90-9, ISIS 13917 220102-92-1, ISIS 13919 220102-93-2, ISIS 13923 220102-94-3, ISIS 13926 220102-95-4, ISIS 13927 220103-01-5, ISIS 14677 220103-02-6, ISIS 14678 220103-03-7, ISIS 14679 220103-04-8, ISIS 14680 220103-05-9, ISIS 14681 220103-06-0, ISIS 14682 220103-07-1,

ISIS 14683 220103-08-2, ISIS 14684 220103-09-3, ISIS 14685
 220103-10-6, ISIS 14686 220103-11-7, ISIS 14687 220103-12-8, ISIS
 14688 220103-13-9, ISIS 14689 220103-14-0, ISIS 14690 220103-15-1,
 ISIS 14691 220103-16-2, ISIS 14692 220103-17-3, ISIS 14693
 220103-20-8, ISIS 14694 220103-21-9, ISIS 14695 220103-22-0, ISIS
 14696 224824-45-7, ISIS 2563 224824-46-8, ISIS 2564 224952-08-3,
 ISIS 3271 224952-09-4, ISIS 3270 224952-10-7, ISIS 3292 224952-11-8,
 ISIS 3291 224952-12-9, ISIS 3283 224952-15-2, ISIS 6953 224952-16-3,
 ISIS 6952 224952-17-4, ISIS 6951 224952-18-5, ISIS 6946 225095-62-5,
 ISIS 2565 225095-63-6, ISIS 2567 225095-64-7, ISIS 2568 225095-65-8,
 ISIS 6947 225105-02-2, ISIS 3284 225644-76-8, ISIS 7683 225782-68-3,
 ISIS 7680

RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES
 (Uses)

(liposomal oligonucleotide compns. for modulating ras gene expression)
 IT 9050-76-4, Rnase H

RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (substrates for; liposomal oligonucleotide compns. for modulating ras
 gene expression)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Anon; US 5576208 A 1996 HCAPLUS
- (2) Chang; Biochemistry 1991, V30(34), P8283 HCAPLUS
- (3) Chonn; Current Biology 1995, V6, P698 HCAPLUS
- (4) Uhlmann; Chemical Reviews 1990, V90(4), P543 HCAPLUS

L12 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2003 ACS

AN 1998:8273 HCAPLUS

DN 128:102346

TI Solid phase synthesis of **PNA-DNA-PNA** chimeric
 macromolecules useful for diagnostics and modulating protein in organisms

IN Cook, Phillip Dan

PA Isis Pharmaceuticals, Inc., USA

SO U.S., 27 pp., Cont.-in-part of U.S. Ser. No. 814,961, abandoned.

CODEN: USXXAM

DT Patent

LA English

IC ICM C07H021-02

ICS C07H021-04

NCL 536023100

CC 33-10 (Carbohydrates)

Section cross-reference(s): 7, 34

FAN.CNT 101

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5700922	A	19971223	US 1993-158352	19931124
	EP 1044987	A2	20001018	EP 2000-202252	19921223
	EP 1044987	A3	20011004		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
	JP 2001002696	A2	20010109	JP 2000-143468	19921223
	CA 2177357	AA	19950601	CA 1994-2177357	19941123
	WO 9514706	A1	19950601	WO 1994-US13523	19941123
	W: AU, CA, JP, KR				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9511860	A1	19950613	AU 1995-11860	19941123
	AU 687954	B2	19980305		
	EP 734391	A1	19961002	EP 1995-902678	19941123
	EP 734391	B1	20020612		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	JP 09500394	T2	19970114	JP 1994-515210	19941123
	EP 1201676	A2	20020502	EP 2001-204074	19941123
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
	AT 219095	E	20020615	AT 1995-902678	19941123

	JP 3335634	B2	20021021	JP 1995-515210	19941123
	AU 713740	B2	19991209	AU 1997-26244	19970624
	AU 9726244	A1	19971106		
	US 6277603	B1	20010821	US 1998-108911	19980701
	US 6232463	B1	20010515	US 1998-128508	19980804
PRAI	US 1991-814961	B2	19911224		
	EP 1993-902851	A3	19921223		
	JP 1993-511953	A3	19921223		
	WO 1992-US11339	A2	19921223		
	AU 1993-38025	A3	19930225		
	US 1993-158352	A	19931124		
	EP 1995-902678	A3	19941123		
	WO 1994-US13523	W	19941123		
	US 1997-877317	A3	19970617		
	US 1997-948151	A1	19971009		
AB	Macromols. are provided that have increased nuclease resistance, increasing binding affinity to a complementary strand, and that activate RNase H enzyme. The macromols. have the structure PNA-DNA-PNA where the DNA portion is composed of subunits of 2'-deoxy-erythro-pentofuranosyl nucleotides and the PNA portions are composed of subunits of peptide nucleic acids . Such macromols. are useful for diagnostics and other research purposes, for modulating protein in organisms, and for the diagnosis, detection and treatment of other conditions susceptible to therapeutics.				
ST	antitumor PNA DNA solid phase synthesis; nuclease resistance DNA solid phase synthesis; PNA DNA solid phase synthesis diagnostic				
IT	Peptide nucleic acids RL: BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses) (DNA-; solid phase synthesis of PNA-DNA-PNA chimeric macromols. useful for diagnostics and modulating protein in organisms)				
IT	DNA RL: BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses) (PNA -; solid phase synthesis of PNA-DNA-PNA chimeric macromols. useful for diagnostics and modulating protein in organisms)				
IT	Antitumor agents Solid phase synthesis (solid phase synthesis of PNA-DNA-PNA chimeric macromols. useful for diagnostics and modulating protein in organisms)				
IT	9014-00-0, Luciferase 9050-76-4, Rnase H RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (solid phase synthesis of PNA-DNA-PNA chimeric macromols. useful for diagnostics and modulating protein in organisms)				
IT	201168-69-6P RL: BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process) (solid phase synthesis of PNA-DNA-PNA chimeric macromols. useful for diagnostics and modulating protein in organisms)				
IT	4530-20-5 83467-48-5 118849-12-0 125700-67-6 139166-80-6 149376-69-2 169287-77-8 170490-73-0 200807-86-9 201099-10-7 201168-70-9 RL: RCT (Reactant); RACT (Reactant or reagent) (solid phase synthesis of PNA-DNA-PNA chimeric macromols. useful for diagnostics and modulating protein in organisms)				
IT	149411-93-8P 170490-69-4P 170490-77-4P 200807-85-8DP, polymer				

support 200807-88-1P 200807-90-5P 200807-91-6P 200807-92-7P
 201168-68-5DP, polymer support
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (solid phase synthesis of **PNA**-DNA-**PNA** chimeric
 macromols. useful for diagnostics and modulating protein in organisms)

L12 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2003 ACS
 AN 1997:380031 HCAPLUS
 Correction of: 1996:755988
 DN 127:2136
 Correction of: 126:141081
 TI Synthesis and properties of **PNA**/DNA chimeras
 AU Uhlmann, Eugen; Will, David W.; Breipohl, Gerhard; Langner, Dietrich;
 Ryte, Antonina
 CS Hoechst AG, Frankfurt/Main, D-65926, Germany
 SO Angewandte Chemie, International Edition in English (1996), 35(22),
 2632-2635
 CODEN: ACIEAY; ISSN: 0570-0833
 PB VCH
 DT Journal
 LA English
 CC 6-2 (General Biochemistry)
 Section cross-reference(s): 3, 9
 AB We have developed a generally applicable method for the automated
 synthesis of DNA/**PNA** chimeras. This method is fully compatible
 with std. DNA synthesis methods and requires no addnl. deprotection steps
 at the end of oligomer synthesis. The binding affinity of DNA-**PNA**
 chimeras is higher than that of the comparable DNA-phosphorothioate
 chimeras or natural oligonucleotides. Unlike pure **PNAs**, the
 DNA-**PNA** chimeras investigated bind only in the antiparallel
 orientation to their complementary nucleic acids under physiol conditions.

ST **PNA** DNA chimera prepn automated
 IT 104655-85-8 149376-29-4 170490-73-0 172316-36-8 172316-40-4
 172316-41-5 172316-42-6 185810-72-4 185810-73-5 185810-74-6
 185810-76-8 185810-78-0 185810-79-1 185810-80-4 185810-81-5
 185810-82-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reactant in synthesis of **PNA**/DNA chimeras)

IT 172316-39-1 185831-40-7 185831-41-8 185831-42-9 185831-43-0
 185831-44-1 185970-57-4 185970-58-5 185970-59-6 185970-60-9
 185970-61-0 185970-62-1 186050-47-5 186050-48-6 186050-49-7
186050-51-1 186050-52-2 186050-53-3 186050-54-4
 186050-55-5 186050-56-6 186050-57-7 186050-58-8
 RL: BPR (Biological process); BSU (Biological study, unclassified); PEP
 (Physical, engineering or chemical process); PRP (Properties); BIOL
 (Biological study); PROC (Process)
 (synthesis and properties of **PNA**/DNA chimeras)

IT 186050-42-0P 186050-43-1P 186050-44-2P 186050-45-3P 186050-46-4P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (synthesis and properties of **PNA**/DNA chimeras)

L12 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2003 ACS
 AN 1996:755988 HCAPLUS
 DN 126:141081
 TI Synthesis and properties of **PNA**/DNA chimeras
 AU Uhlmann, Eugen; Will, David W.; Breipohl, Gerhard; Langner, Dietrich;
 Ryte, Antonina
 CS Hoechst AG, Frankfurt/Main, D-65926, Germany
 SO Angewandte Chemie, International Edition in English (1996), 35(22),
 2632-2635
 CODEN: ACIEAY; ISSN: 0570-0833
 PB VCH

DT Journal
 LA English
 CC 6-2 (General Biochemistry)
 Section cross-reference(s): 32, 33

AB We have developed a generally applicable method for the automated synthesis of DNA/**PNA** chimeras. This method is fully compatible with std. DNA synthesis methods and requires no addnl. deprotection steps at the end of oligomer synthesis. The binding affinity of DNA-**PNA** chimeras is higher than that of the comparable DNA-phosphorothioate chimeras or natural oligonucleotides. Unlike pure **PNAs**, the DNA-**PNA** chimeras investigated bind only in the antiparallel orientation to their complementary nucleic acids under physiol. conditions.

ST **PNA** DNA chimera prepn automated

IT 104655-85-8 149376-29-4 170490-73-0 172316-36-8 172316-40-4
 172316-41-5 172316-42-6 185810-72-4 185810-73-5 185810-74-6
 185810-76-8 185810-78-0 185810-79-1 185810-80-4 185810-81-5
 185810-82-6

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reactant in synthesis of **PNA**/DNA chimeras)

IT 172316-39-1 185831-40-7 185831-41-8 185831-42-9 185831-43-0
 185831-44-1 185970-57-4 185970-58-5 185970-59-6 185970-60-9
 185970-61-0 185970-62-1 186050-47-5 186050-48-6 186050-49-7
186050-51-1 186050-52-2 186050-53-3 186050-54-4
 186050-55-5 186050-56-6 186050-57-7 186050-58-8

RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); BIOL (Biological study); PROC (Process)
 (synthesis and properties of **PNA**/DNA chimeras)

IT 186050-42-0P 186050-43-1P 186050-44-2P 186050-45-3P 186050-46-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (synthesis and properties of **PNA**/DNA chimeras)

L12 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2003 ACS
 AN 1995:438137 HCAPLUS
 DN 122:308057
 TI Oligomers comprising protein nucleic acid subunit for modulating ras oncogene
 IN Lima, Walter; Monia, Brett; Freier, Susan; Ecker, David
 PA ISIS Pharmaceutical, Inc., USA
 SO PCT Int. Appl., 147 pp.
 CODEN: PIXXD2

DT Patent
 LA English
 IC ICM A01N043-04
 ICS A61K031-70; A61K037-00; C07H017-00; C12N015-00
 CC 3-1 (Biochemical Genetics)
 Section cross-reference(s): 14

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9428720	A1	19941222	WO 1994-US6620	19940610
	W: AU, BB, BG, BR, BY, CA, CN, CZ, FI, HU, JP, KP, KR, KZ, LK, LV, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SI, SK, TT, UA, US, UZ, VN				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9472067	A1	19950103	AU 1994-72067	19940610
PRAI	US 1993-76234		19930611		
	WO 1994-US6620		19940610		

AB Oligomers useful for modulation of expression of the human ras gene in both normal and activated forms are disclosed. The oligomers are comprised of .gtoreq.1 protein nucleic acid subunit. Such oligomers can be used for diagnostics as well as for res. purposes. Methods are also

disclosed for modulating ras gene expression in cells and tissues using the oligomers and for specific modulation of expression of the activated ras gene. Methods for diagnosis, detection and treatment of conditions arising from the activation of the H-ras and K-ras genes are also disclosed.

ST protein nucleic acid oligomer ras modulation

IT Nucleopeptides

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(PNA (peptide nucleic acids);

oligomers comprising protein nucleic acid subunit for modulating ras oncogene)

IT Transcription, genetic

(of ras gene; ttgccacacccgacggcgccacccaoligomers comprising protein nucleic acid subunit for modulating ras oncogene)

IT Gene, animal

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(c-Ha-ras, oligomers comprising protein nucleic acid subunit for modulating ras oncogene)

IT Gene, animal

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(c-Ki-ras, oligomers comprising protein nucleic acid subunit for modulating ras oncogene)

IT 161743-31-3P 161743-34-6P 162003-36-3P **162003-37-4P**

162003-38-5P 162003-39-6P 162003-40-9P 162003-41-0P 162003-42-1P

162003-43-2P 162003-44-3P 162003-45-4P 162003-46-5P 162003-47-6P

162003-48-7P 162003-51-2P 162003-52-3P 162003-53-4P 162003-54-5P

162003-55-6P 162003-56-7P **162003-57-8P** 162003-72-7P

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(oligomers comprising protein nucleic acid subunit for modulating H-ras oncogene)

IT 162003-58-9P 162003-59-0P 162003-60-3P 162003-61-4P 162003-62-5P

162003-63-6P 162003-64-7P 162003-65-8P 162003-66-9P 162003-67-0P

162003-68-1P 162003-69-2P 162003-70-5P 162003-71-6P

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(oligomers comprising protein nucleic acid subunit for modulating K-ras oncogene)

IT 162003-49-8P 162003-50-1P

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(oligonucleotide; oligomers comprising protein nucleic acid subunit for modulating H-ras oncogene)

=> fil reg

FILE 'REGISTRY' ENTERED AT 10:44:19 ON 13 APR 2003

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STRUCTURE FILE UPDATES: 11 APR 2003 HIGHEST RN 502793-56-8

DICTIONARY FILE UPDATES: 11 APR 2003 HIGHEST RN 502793-56-8

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> d sqide can tot

L16 ANSWER 1 OF 3 REGISTRY COPYRIGHT 2003 ACS

RN **215953-83-6** REGISTRY

CN DNA, d(P-thio)(T-A-T-T-C-C-G-T-C-A-T-C-G-C-T-C-C-T-C-A) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN ISIS 6186

FS NUCLEIC ACID SEQUENCE

SQL **20**

NA 3 a 8 c 2 g 7 t

NTE

type	----- location -----		description
modified link	t-1	- a-2	P-thio
modified link	a-2	- t-3	P-thio
modified link	t-3	- t-4	P-thio
modified link	t-4	- c-5	P-thio
modified link	c-5	- c-6	P-thio
modified link	c-6	- g-7	P-thio
modified link	g-7	- t-8	P-thio
modified link	t-8	- c-9	P-thio
modified link	c-9	- a-10	P-thio
modified link	a-10	- t-11	P-thio
modified link	t-11	- c-12	P-thio
modified link	c-12	- g-13	P-thio
modified link	g-13	- c-14	P-thio
modified link	c-14	- t-15	P-thio
modified link	t-15	- c-16	P-thio
modified link	c-16	- c-17	P-thio
modified link	c-17	- t-18	P-thio
modified link	t-18	- c-19	P-thio
modified link	c-19	- a-20	P-thio

SEQ 1 tattccgtca tcgctcctca

=====

HITS AT: 1-11

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF Unspecified

CI MAN

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

4 REFERENCES IN FILE CA (1962 TO DATE)

4 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 138:100915

REFERENCE 2: 131:9617

REFERENCE 3: 130:134176

REFERENCE 4: 130:10615

L16 ANSWER 2 OF 3 REGISTRY COPYRIGHT 2003 ACS

RN 149957-13-1 REGISTRY

CN Cytidine, 2'-deoxy-P-thiocytidylyl-(3'.fwdarw.5')-P-thiothymidylyl-(3'.fwdarw.5')-P-thiothymidylyl-(3'.fwdarw.5')-2'-deoxy-P-thioadenylyl-(3'.fwdarw.5')-P-thiothymidylyl-(3'.fwdarw.5')-2'-deoxy-P-thioadenylyl-(3'.fwdarw.5')-P-thiothymidylyl-(3'.fwdarw.5')-P-thiothymidylyl-(3'.fwdarw.5')-2'-deoxy-P-thiocytidylyl-(3'.fwdarw.5')-2'-deoxy-P-thiocytidylyl-(3'.fwdarw.5')-2'-deoxy-P-thioguanilyl-(3'.fwdarw.5')-P-thiothymidylyl-(3'.fwdarw.5')-2'-deoxy-P-thiocytidylyl-(3'.fwdarw.5')-2'-deoxy-P-thioadenylyl-(3'.fwdarw.5')-P-thiothymidylyl-(3'.fwdarw.5')-2'-deoxy-P-thiocytidylyl-(3'.fwdarw.5')-2'-deoxy-P-thioguanilyl-(3'.fwdarw.5')-2'-deoxy-P-thiocytidylyl-(3'.fwdarw.5')-P-thiothymidylyl-(3'.fwdarw.5')-2'-deoxy- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN ISIS 2502

FS NUCLEIC ACID SEQUENCE

SQL 20

NA 3 a 7 c 2 g 8 t

NTE

type	----- location -----		description
modified link	c-1	- t-2	P-thio
modified link	t-2	- t-3	P-thio
modified link	t-3	- a-4	P-thio
modified link	a-4	- t-5	P-thio
modified link	t-5	- a-6	P-thio
modified link	a-6	- t-7	P-thio
modified link	t-7	- t-8	P-thio
modified link	t-8	- c-9	P-thio
modified link	c-9	- c-10	P-thio
modified link	c-10	- g-11	P-thio
modified link	g-11	- t-12	P-thio
modified link	t-12	- c-13	P-thio
modified link	c-13	- a-14	P-thio
modified link	a-14	- t-15	P-thio
modified link	t-15	- c-16	P-thio
modified link	c-16	- g-17	P-thio
modified link	g-17	- c-18	P-thio
modified link	c-18	- t-19	P-thio
modified link	t-19	- c-20	P-thio

SEQ 1 cttatatattcc gtcacgcgctc

=====

HITS AT: 5-15

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF Unspecified

CI MAN

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

8 REFERENCES IN FILE CA (1962 TO DATE)

8 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 138:100915

REFERENCE 2: 131:237986

REFERENCE 3: 131:9617
REFERENCE 4: 130:139589
REFERENCE 5: 130:134176
REFERENCE 6: 130:110559
REFERENCE 7: 130:10615
REFERENCE 8: 119:173570

L16 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2003 ACS

RN 116364-61-5 REGISTRY

CN DNA, d(T-A-T-T-C-C-G-T-C-A-T) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Thymidine, thymidylyl-(3'.fwdarw.5')-2'-deoxyadenylyl-(3'.fwdarw.5')-
thymidylyl-(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-
(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-2'-deoxyguanylyl-
(3'.fwdarw.5')-thymidylyl-(3'.fwdarw.5')-2'-deoxycytidylyl-(3'.fwdarw.5')-
2'-deoxyadenylyl-(3'.fwdarw.5')-

OTHER NAMES:

CN 17: PN: WO0108707 SEQID: 17 unclaimed DNA

CN 2: PN: US6027892 SEQID: 2 claimed DNA

FS NUCLEIC ACID SEQUENCE; STEREOSEARCH

SQL 11

NA 2 a 3 c 1 g 5 t

PATENT ANNOTATIONS (PNTE):

Sequence |Patent

Source |Reference

=====+=====

Not Given|US6027892

|claimed

|SEQID 2

-----+-----

|WO2001008707

|unclaimed

|SEQID 17

SEQ 1 tattccgtca t

===== =

HITS AT: 1-11

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF C107 H138 N34 O67 P10

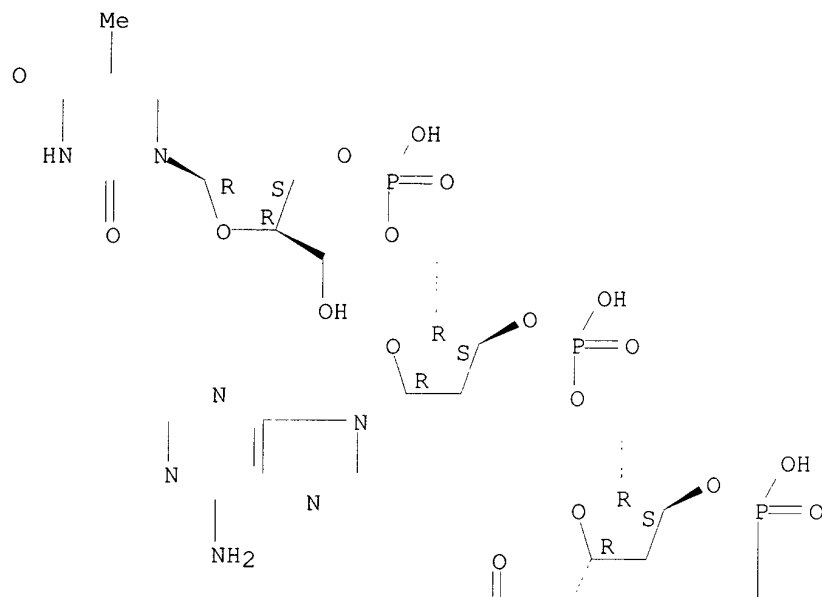
CI COM

SR CA

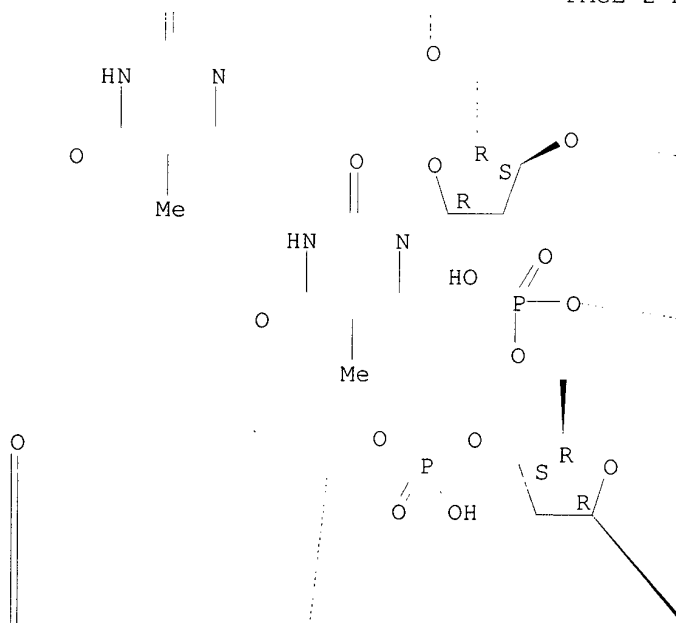
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.

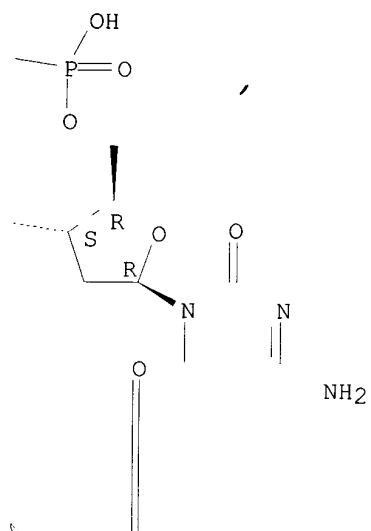
PAGE 1-A



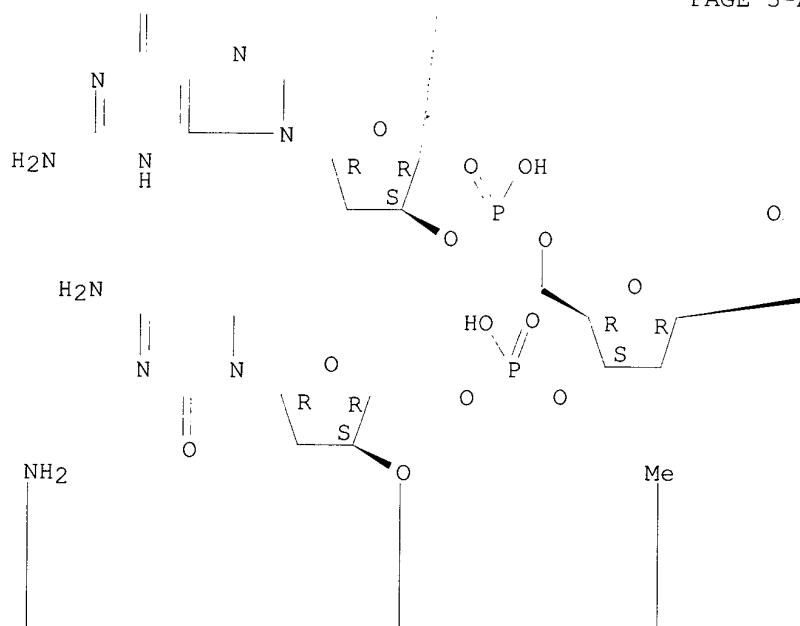
PAGE 2-A



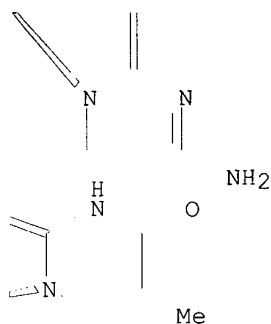
PAGE 2-B



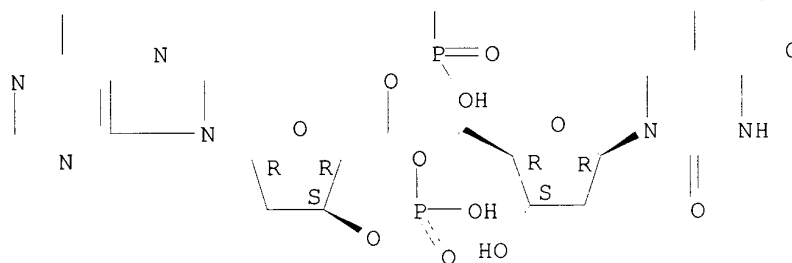
PAGE 3-A



PAGE 3-B



PAGE 4-A



6 REFERENCES IN FILE CA (1962 TO DATE)
 6 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:331678
 REFERENCE 2: 135:331677
 REFERENCE 3: 134:183461
 REFERENCE 4: 132:175816
 REFERENCE 5: 112:111614
 REFERENCE 6: 109:124551

=> d sqide can tot

L17 ANSWER 1 OF 27 REGISTRY COPYRIGHT 2003 ACS

RN 368944-45-0 REGISTRY

CN Peptide nucleic acid, ([5'-deamino-5'-[[[6-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]hexyl]oxy]hydroxyphosphinyl]oxy]]T-A-T-T-C-C-G-T-C-A-T)-(6-hydroxyhexyl)NH, complex with RNA (A-U-G-A-C-G-G-A-A-U-A) (1:1) (9CI)
 (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN RNA, (A-U-G-A-C-G-G-A-A-U-A), complex with peptide nucleic acid
 ([5'-deamino-5'-[[[6-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]hexyl]oxy]hydroxyphosphinyl]oxy]]T-A-T-T-C-C-G-T-C-A-T)-(6-hydroxyhexyl)NH (1:1) (9CI)

FS NUCLEIC ACID SEQUENCE

SQL 22,11,11

NA 7 a 4 c 4 g 5 t 2 u
NTE multistranded (2)
modified

type	location	description
modified base	t-1[2]	5'-ester
modified base	t-1[2]	modified thymidine
modified base	t-11[2]	3'-deoxy
modified base	t-11[2]	3'-substituted

SEQ 1 augacggaau a

SEQ 1 tattccgtca t
=====

HITS AT: 1-11

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF Unspecified

CI MAN

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:331678

L17 ANSWER 2 OF 27 REGISTRY COPYRIGHT 2003 ACS

RN 368944-44-9 REGISTRY

CN DNA, d(A-T-G-A-C-G-G-A-A-T-A), complex with peptide nucleic acid
([5'-deamino-5'-[[[6-[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-
d]imidazol-4-yl]-1-oxopentyl]amino]hexyl]oxy]hydroxyphosphinyl]oxy]]T-A-T-
T-C-C-G-T-C-A-T)-(6-hydroxyhexyl)NH (1:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Peptide nucleic acid, ([5'-deamino-5'-[[[6-[5-[(3aS,4S,6aR)-
hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-
oxopentyl]amino]hexyl]oxy]hydroxyphosphinyl]oxy]]T-A-T-T-C-C-G-T-C-A-T)-(6-
hydroxyhexyl)NH, complex with DNA d(A-T-G-A-C-G-G-A-A-T-A) (1:1) (9CI)

FS NUCLEIC ACID SEQUENCE

SQL 22,11,11

NA 7 a 4 c 4 g 7 t

NTE multistranded (2)
modified

type	location	description
modified base	t-1[2]	5'-ester
modified base	t-1[2]	modified thymidine
modified base	t-11[2]	3'-deoxy
modified base	t-11[2]	3'-substituted

SEQ 1 atgacggaat a

SEQ 1 tattccgtca t
=====

HITS AT: 1-11

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF Unspecified

CI MAN

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:331678

L17 ANSWER 3 OF 27 REGISTRY COPYRIGHT 2003 ACS
RN 368944-43-8 REGISTRY
CN Peptide nucleic acid, ([5'-deamino-5'-[[[[6-[[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]thioxomethyl]amino]hexyl]oxy]hydroxyphosphinyl]oxy]]T-A-T-T-C-C-G-T-C-A-T)-(6-hydroxyhexyl)NH, complex with RNA (A-U-G-A-C-G-G-A-A-U-A) (1:1) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN RNA, (A-U-G-A-C-G-G-A-A-U-A), complex with peptide nucleic acid ([5'-deamino-5'-[[[[6-[[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]thioxomethyl]amino]hexyl]oxy]hydroxyphosphinyl]oxy]]T-A-T-T-C-C-G-T-C-A-T)-(6-hydroxyhexyl)NH (1:1) (9CI)
FS NUCLEIC ACID SEQUENCE
SQL 22,11,11
NA 7 a 4 c 4 g 5 t 2 u
NTE multistranded (2)
modified

type	location	description
modified base	t-1[2]	5'-ester
modified base	t-1[2]	modified thymidine
modified base	t-11[2]	3'-deoxy
modified base	t-11[2]	3'-substituted

SEQ 1 augacggaau a

SEQ 1 tattccgtca t
=====

HITS AT: 1-11

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF Unspecified

CI MAN

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:331678

L17 ANSWER 4 OF 27 REGISTRY COPYRIGHT 2003 ACS
RN 368944-42-7 REGISTRY
CN DNA, d(A-T-G-A-C-G-G-A-A-T-A), complex with peptide nucleic acid ([5'-deamino-5'-[[[[6-[[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]thioxomethyl]amino]hexyl]oxy]hydroxyphosphinyl]oxy]]T-A-T-T-C-C-G-T-C-A-T)-(6-hydroxyhexyl)NH (1:1) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Peptide nucleic acid, ([5'-deamino-5'-[[[[6-[[[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]thioxomethyl]amino]hexyl]oxy]hydroxyphosphinyl]oxy]]T-A-T-T-C-C-G-T-C-A-T), complex with DNA d(A-T-G-A-C-G-G-A-A-T-A) (1:1) (9CI)
FS NUCLEIC ACID SEQUENCE
SQL 22,11,11
NA 7 a 4 c 4 g 7 t

NTE multistranded (2)
modified

type	location	description
modified base	t-1[2]	5'-ester
modified base	t-1[2]	modified thymidine
modified base	t-11[2]	3'-deoxy
modified base	t-11[2]	3'-substituted

SEQ 1 atgacggaat a

SEQ 1 tattccgtca t

===== =

HITS AT: 1-11

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF Unspecified

CI MAN

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:331678

L17 ANSWER 5 OF 27 REGISTRY COPYRIGHT 2003 ACS

RN 368944-41-6 REGISTRY

CN Peptide nucleic acid, ([5'-deamino-5'-[[(hexadecyloxy)hydroxyphosphinyl]oxy]]T-A-T-T-C-C-G-T-C-A-T)-(6-hydroxyhexyl)NH, complex with RNA (A-U-G-A-C-G-G-A-A-U-A) (1:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN RNA, (A-U-G-A-C-G-G-A-A-U-A), complex with peptide nucleic acid ([5'-deamino-5'-[[(hexadecyloxy)hydroxyphosphinyl]oxy]]T-A-T-T-C-C-G-T-C-A-T)-(6-hydroxyhexyl)NH (1:1) (9CI)

FS NUCLEIC ACID SEQUENCE

SQL 22,11,11

NA 7 a 4 c 4 g 5 t 2 u

NTE multistranded (2)
modified

type	location	description
modified base	t-1[2]	5'-ester
modified base	t-1[2]	modified thymidine
modified base	t-11[2]	3'-deoxy
modified base	t-11[2]	3'-substituted

SEQ 1 augacggaau a

SEQ 1 tattccgtca t

===== =

HITS AT: 1-11

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF Unspecified

CI MAN

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:331678

L17 ANSWER 6 OF 27 REGISTRY COPYRIGHT 2003 ACS

RN 368944-40-5 REGISTRY

CN DNA, d(A-T-G-A-C-G-G-A-A-T-A), complex with peptide nucleic acid
([5'-deamino-5'-[[(hexadecyloxy)hydroxyphosphinyl]oxy]]T-A-T-T-C-C-G-T-C-A-T)-(6-hydroxyhexyl)NH (1:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Peptide nucleic acid, ([5'-deamino-5'-[[(hexadecyloxy)hydroxyphosphinyl]oxy]]T-A-T-T-C-C-G-T-C-A-T)-(6-hydroxyhexyl)NH, complex with DNA
d(A-T-G-A-C-G-G-A-A-T-A) (1:1) (9CI)

FS NUCLEIC ACID SEQUENCE

SQL 22,11,11

NA 7 a 4 c 4 g 7 t

NTE multistranded (2)
modified

type	location	description
modified base	t-1[2]	5'-ester
modified base	t-1[2]	modified thymidine
modified base	t-11[2]	3'-deoxy
modified base	t-11[2]	3'-substituted

SEQ 1 atgacggaat a

SEQ 1 tattccgtca t
=====

HITS AT: 1-11

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF Unspecified

CI MAN

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:331678

L17 ANSWER 7 OF 27 REGISTRY COPYRIGHT 2003 ACS

RN 368944-39-2 REGISTRY

CN Peptide nucleic acid, ([5'-deamino-5'-(phosphonooxy)]T-A-T-T-C-C-G-T-C-A-T)-(6-hydroxyhexyl)NH, complex with RNA (A-U-G-A-C-G-G-A-A-U-A) (1:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN RNA, (A-U-G-A-C-G-G-A-A-U-A), complex with peptide nucleic acid
([5'-deamino-5'-(phosphonooxy)]T-A-T-T-C-C-G-T-C-A-T)-(6-hydroxyhexyl)NH
(1:1) (9CI)

FS NUCLEIC ACID SEQUENCE

SQL 22,11,11

NA 7 a 4 c 4 g 5 t 2 u

NTE multistranded (2)
modified

type	location	description
modified base	t-1[2]	5'-phosphate
modified base	t-1[2]	modified thymidine
modified base	t-11[2]	3'-deoxy
modified base	t-11[2]	3'-substituted

SEQ 1 augacggaau a

SEQ 1 tattccgtca t

=====

HITS AT: 1-11

****RELATED SEQUENCES AVAILABLE WITH SEQLINK****

MF Unspecified

CI MAN

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 1 REFERENCES IN FILE CA (1962 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:331678

L17 ANSWER 8 OF 27 REGISTRY COPYRIGHT 2003 ACS

RN 368944-38-1 REGISTRY

CN DNA, d(A-T-G-A-C-G-G-A-A-T-A), complex with peptide nucleic acid
 ([5'-deamino-5'-(phosphonooxy)]T-A-T-T-C-C-G-T-C-A-T)-(6-hydroxyhexyl)NH
 (1:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Peptide nucleic acid, ([5'-deamino-5'-(phosphonooxy)]T-A-T-T-C-C-G-T-
 C-A-T)-(6-hydroxyhexyl)NH, complex with DNA d(A-T-G-A-C-G-G-A-A-T-A) (1:1)
 (9CI)

FS NUCLEIC ACID SEQUENCE

SQL 22,11,11

NA 7 a 4 c 4 g 7 t

NTE multistranded (2)
 modified

type	location	description
modified base	t-1[2]	5'-phosphate
modified base	t-1[2]	modified thymidine
modified base	t-11[2]	3'-deoxy
modified base	t-11[2]	3'-substituted

SEQ 1 atgacggaat a

SEQ 1 tattccgtca t

=====

HITS AT: 1-11

****RELATED SEQUENCES AVAILABLE WITH SEQLINK****

MF Unspecified

CI MAN

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 1 REFERENCES IN FILE CA (1962 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:331678

L17 ANSWER 9 OF 27 REGISTRY COPYRIGHT 2003 ACS

RN 368944-37-0 REGISTRY

CN Peptide nucleic acid, ([5'-deamino-5'-[[[[6-[[[(3',6'-dihydroxy-3-
 oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-
 yl)amino]thioxomethyl]amino]hexyl]oxy]hydroxyphosphinyl]oxy]]T-A-T-T-C-C-G-
 T-C-A-T)-(6-hydroxyhexyl)NH (9CI) (CA INDEX NAME)

FS NUCLEIC ACID SEQUENCE
 SQL 11
 NA 2 a 3 c 1 g 5 t
 NTE modified

type	location	description
modified base	t-1	5'-ester
modified base	t-1	modified thymidine
modified base	t-11	3'-deoxy
modified base	t-11	3'-substituted

SEQ 1 tattccgtca t
 ===== =

HITS AT: 1-11

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF Unspecified

CI MAN

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 1 REFERENCES IN FILE CA (1962 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:331678

L17 ANSWER 10 OF 27 REGISTRY COPYRIGHT 2003 ACS

RN 368944-36-9 REGISTRY

CN Peptide nucleic acid, ([5'-deamino-5'-[[(hexadecyloxy)hydroxyphosphinyl]oxy]]T-A-T-T-C-C-G-T-C-A-T)-(6-hydroxyhexyl)NH (9CI) (CA INDEX NAME)

FS NUCLEIC ACID SEQUENCE

SQL 11

NA 2 a 3 c 1 g 5 t

NTE modified

type	location	description
modified base	t-1	5'-ester
modified base	t-1	modified thymidine
modified base	t-11	3'-deoxy
modified base	t-11	3'-substituted

SEQ 1 tattccgtca t
 ===== =

HITS AT: 1-11

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF Unspecified

CI MAN

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 1 REFERENCES IN FILE CA (1962 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:331678

L17 ANSWER 11 OF 27 REGISTRY COPYRIGHT 2003 ACS

RN 368944-35-8 REGISTRY

CN Peptide nucleic acid, ([5'-deamino-5'-[[[[6-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-

oxopentyl]amino]hexyl]oxy]hydroxyphosphinyl]oxy]]T-A-T-T-C-C-G-T-C-A-T)-(6-hydroxyhexyl)NH (9CI) (CA INDEX NAME)
FS NUCLEIC ACID SEQUENCE
SQL 11
NA 2 a 3 c 1 g 5 t
NTE modified

type	location	description
modified base	t-1	5'-ester
modified base	t-1	modified thymidine
modified base	t-11	3'-deoxy
modified base	t-11	3'-substituted

SEQ 1 tattccgtca t
===== =
HITS AT: 1-11

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:331678

L17 ANSWER 12 OF 27 REGISTRY COPYRIGHT 2003 ACS
RN 368506-25-6 REGISTRY
CN Peptide nucleic acid, ([5'-deamino-5'-(phosphonoxy)]T-A-T-T-C-C-G-T-C-A-T)-(6-hydroxyhexyl)NH (9CI) (CA INDEX NAME)
FS NUCLEIC ACID SEQUENCE
SQL 11
NA 2 a 3 c 1 g 5 t
NTE modified

type	location	description
modified base	t-1	modified thymidine
modified base	t-1	5'-phosphate
modified base	t-11	3'-deoxy
modified base	t-11	3'-substituted

SEQ 1 tattccgtca t
===== =
HITS AT: 1-11

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:331678

L17 ANSWER 13 OF 27 REGISTRY COPYRIGHT 2003 ACS
RN 368505-40-2 REGISTRY
CN Peptide nucleic acid, ([5'-[(28-amino-1,21-dihydroxy-1,21-dioxido-

2,5,8,11,14,17,20,22-octaosa-1,21-diphosphaoctacos-1-yl)oxy]-5'-deamino]T-A-T-T-C-C-G-T-C-A-T)-[6-(phosphonooxy)hexyl]NH, complex with RNA
(A-U-G-A-C-G-G-A-A-U-A) (1:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN RNA, (A-U-G-A-C-G-G-A-A-U-A), complex with peptide nucleic acid
([5'-[(28-amino-1,21-dihydroxy-1,21-dioxido-2,5,8,11,14,17,20,22-octaosa-1,21-diphosphaoctacos-1-yl)oxy]-5'-deamino]T-A-T-T-C-C-G-T-C-A-T)-[6-(phosphonooxy)hexyl]NH (1:1) (9CI)

FS NUCLEIC ACID SEQUENCE

SQL 22,11,11

NA 7 a 4 c 4 g 5 t 2 u

NTE multistranded (2)
modified

type	location	description
modified base	t-1[2]	5'-ester
modified base	t-1[2]	modified thymidine
modified base	t-11[2]	3'-deoxy
modified base	t-11[2]	3'-substituted

SEQ 1 augacggaau a

SEQ 1 tattccgtca t
=====

HITS AT: 1-11

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF Unspecified

CI MAN

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:331677

L17 ANSWER 14 OF 27 REGISTRY COPYRIGHT 2003 ACS

RN 368505-39-9 REGISTRY

CN Peptide nucleic acid, ([5'-deamino-5'-[(hexadecyloxy)hydroxyphosphinyl]oxy]]T-A-T-T-C-C-G-T-C-A-T)-[17-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]-8-hydroxy-11-(hydroxymethyl)-8-oxido-17-thioxo-7,9-dioxa-16-aza-8-phosphaheptadec-1-yl]NH (9CI) (CA INDEX NAME)

FS NUCLEIC ACID SEQUENCE

SQL 11

NA 2 a 3 c 1 g 5 t

NTE modified

type	location	description
modified base	t-1	5'-ester
modified base	t-1	modified thymidine
modified base	t-11	3'-deoxy
modified base	t-11	3'-substituted

SEQ 1 tattccgtca t
=====

HITS AT: 1-11

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF Unspecified
 CI MAN
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 1 REFERENCES IN FILE CA (1962 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:331677

L17 ANSWER 15 OF 27 REGISTRY COPYRIGHT 2003 ACS
 RN 368505-38-8 REGISTRY
 CN Peptide nucleic acid, ([5'-deamino-5'-[[[[6-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]hexyl]oxy]hydroxyphosphinyl]oxy]]T-A-T-T-C-C-G-T-C-A-T)-[2-(phosphonooxy)ethyl]NH (9CI) (CA INDEX NAME)
 FS NUCLEIC ACID SEQUENCE
 SQL 11
 NA 2 a 3 c 1 g 5 t
 NTE modified

type	location	description
modified base	t-1	5'-ester
modified base	t-1	modified thymidine
modified base	t-11	3'-deoxy
modified base	t-11	3'-substituted

SEQ 1 tattccgtca t
 ===== =

HITS AT: 1-11

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF Unspecified
 CI MAN
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 1 REFERENCES IN FILE CA (1962 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:331677

L17 ANSWER 16 OF 27 REGISTRY COPYRIGHT 2003 ACS
 RN 368505-37-7 REGISTRY
 CN Peptide nucleic acid, (acetyl-T-A-T-T-C-C-G-T-C-A-[3'-de(carboxymethyl)-3'-[2-(phosphonooxy)ethyl]]T) (9CI) (CA INDEX NAME)
 FS NUCLEIC ACID SEQUENCE
 SQL 11
 NA 2 a 3 c 1 g 5 t
 NTE modified

type	location	description
modified base	t-1	5'-substituted
modified base	t-11	3'-deoxy
modified base	t-11	3'-substituted

SEQ 1 tattccgtca t
 ===== =

HITS AT: 1-11

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF Unspecified
 CI MAN
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 1 REFERENCES IN FILE CA (1962 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:331677

L17 ANSWER 17 OF 27 REGISTRY COPYRIGHT 2003 ACS

RN 367985-23-7 REGISTRY

CN Peptide nucleic acid, ([5'-deamino-5'-[(hexadecyloxy)hydroxyphosphinyl]oxy]]T-A-T-T-C-C-G-T-C-A-T)-[17-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]-8-hydroxy-11-(hydroxymethyl)-8-oxido-17-thioxo-7,9-dioxa-16-aza-8-phosphaheptadec-1-yl]NH, complex with RNA (A-U-G-A-C-G-G-A-A-U-A) (1:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN RNA, (A-U-G-A-C-G-G-A-A-U-A), complex with peptide nucleic acid ([5'-deamino-5'-[(hexadecyloxy)hydroxyphosphinyl]oxy]]T-A-T-T-C-C-G-T-C-A-T)-[17-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]-8-hydroxy-11-(hydroxymethyl)-8-oxido-17-thioxo-7,9-dioxa-16-aza-8-phosphaheptadec-1-yl]NH (1:1) (9CI)

FS NUCLEIC ACID SEQUENCE

SQL 22,11,11

NA 7 a 4 c 4 g 5 t 2 u

NTE multistranded (2)
 modified

type	----- location -----	description
modified base	t-1[2]	5'-ester
modified base	t-1[2]	modified thymidine
modified base	t-11[2]	3'-deoxy
modified base	t-11[2]	3'-substituted

SEQ 1 augacggaau a

SEQ 1 tattccgtca t
 =====

HITS AT: 1-11

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF Unspecified
 CI MAN
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 1 REFERENCES IN FILE CA (1962 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:331677

L17 ANSWER 18 OF 27 REGISTRY COPYRIGHT 2003 ACS

RN 367985-22-6 REGISTRY

CN DNA, d(A-T-G-A-C-G-G-A-A-T-A), complex with peptide nucleic acid ([5'-deamino-5'-[(hexadecyloxy)hydroxyphosphinyl]oxy]]T-A-T-T-C-C-G-T-C-A-T)-[17-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]-8-hydroxy-11-(hydroxymethyl)-8-oxido-17-thioxo-7,9-dioxa-16-aza-8-phosphaheptadec-1-yl]NH (1:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Peptidic nucleic acid, ([5'-deamino-5'-[(hexadecyloxy)hydroxyphosphinyl]oxy]]T-A-T-T-C-C-G-T-C-A-T)-[17-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]-8-hydroxy-11-(hydroxymethyl)-8-oxido-17-thioxo-7,9-dioxa-16-aza-8-phosphaheptadec-1-yl]NH (1:1) (9CI)

yl]oxy]]T-A-T-T-C-C-G-T-C-A-T)-[17-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]-8-hydroxy-11-(hydroxymethyl)-8-oxido-17-thioxo-7,9-dioxa-16-aza-8-phosphaheptadec-1-yl]NH, complex with DNA d(A-T-G-A-C-G-G-A-A-T-A) (1:1) (9CI)

FS NUCLEIC ACID SEQUENCE
SQL 22,11,11
NA 7 a 4 c 4 g 7 t
NTE multistranded (2)
modified

type	location	description
modified base	t-1[2]	5'-ester
modified base	t-1[2]	modified thymidine
modified base	t-11[2]	3'-deoxy
modified base	t-11[2]	3'-substituted

SEQ 1 atgacggaat a

SEQ 1 tattccgtca t

=====

HITS AT: 1-11

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF Unspecified

CI MAN

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:331677

L17 ANSWER 19 OF 27 REGISTRY COPYRIGHT 2003 ACS

RN 367985-21-5 REGISTRY

CN Peptide nucleic acid, ([5'-deamino-5'-(phosphonooxy)]T-A-T-T-C-C-G-T-C-A-T)-[17-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]-8-hydroxy-11-(hydroxymethyl)-8-oxido-17-thioxo-7,9-dioxa-16-aza-8-phosphaheptadec-1-yl]NH, complex with RNA (A-U-G-A-C-G-G-A-A-U-A) (1:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN RNA, (A-U-G-A-C-G-G-A-A-U-A), complex with peptide nucleic acid ([5'-deamino-5'-(phosphonooxy)]T-A-T-T-C-C-G-T-C-A-T)-[17-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]-8-hydroxy-11-(hydroxymethyl)-8-oxido-17-thioxo-7,9-dioxa-16-aza-8-phosphaheptadec-1-yl]NH (1:1) (9CI)

FS NUCLEIC ACID SEQUENCE

SQL 22,11,11

NA 7 a 4 c 4 g 5 t 2 u

NTE multistranded (2)
modified

type	location	description
modified base	t-1[2]	5'-phosphate
modified base	t-1[2]	modified thymidine
modified base	t-11[2]	3'-deoxy
modified base	t-11[2]	3'-substituted

SEQ 1 augacggaau a

SEQ 1 tattccgtca t
=====

HITS AT: 1-11

****RELATED SEQUENCES AVAILABLE WITH SEQLINK****

MF Unspecified

CI MAN

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:331677

L17 ANSWER 20 OF 27 REGISTRY COPYRIGHT 2003 ACS

RN 367985-20-4 REGISTRY

CN DNA, d(A-T-G-A-C-G-G-A-A-T-A), complex with peptide nucleic acid
([5'-deamino-5'-(phosphonooxy)]T-A-T-T-C-C-G-T-C-A-T)-[17-[(3',6'-
dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]-8-
hydroxy-11-(hydroxymethyl)-8-oxido-17-thioxo-7,9-dioxa-16-aza-8-
phosphaheptadec-1-yl]NH (1:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Peptide nucleic acid, ([5'-deamino-5'-(phosphonooxy)]T-A-T-T-C-C-G-T-
C-A-T)-[17-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-
[9H]xanthen]-5-yl)amino]-8-hydroxy-11-(hydroxymethyl)-8-oxido-17-thioxo-
7,9-dioxa-16-aza-8-phosphaheptadec-1-yl]NH, complex with DNA
d(A-T-G-A-C-G-G-A-A-T-A) (1:1) (9CI)

FS NUCLEIC ACID SEQUENCE

SQL 22,11,11

NA 7 a 4 c 4 g 7 t

NTE multistranded (2)
modified

type	location	description
modified base	t-1[2]	5'-phosphate
modified base	t-1[2]	modified thymidine
modified base	t-11[2]	3'-deoxy
modified base	t-11[2]	3'-substituted

SEQ 1 atgacggaat a

SEQ 1 tattccgtca t
=====

HITS AT: 1-11

****RELATED SEQUENCES AVAILABLE WITH SEQLINK****

MF Unspecified

CI MAN

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:331677

L17 ANSWER 21 OF 27 REGISTRY COPYRIGHT 2003 ACS

RN 367985-19-1 REGISTRY

CN Peptide nucleic acid, ([5'-deamino-5'-(phosphonooxy)]T-A-T-T-C-C-G-T-
C-A-T)-[17-[(3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-
[9H]xanthen]-5-yl)amino]-8-hydroxy-11-(hydroxymethyl)-8-oxido-17-thioxo-
7,9-dioxa-16-aza-8-phosphaheptadec-1-yl]NH (9CI) (CA INDEX NAME)

FS NUCLEIC ACID SEQUENCE
 SQL 11
 NA 2 a 3 c 1 g 5 t
 NTE modified

type	location	description
modified base	t-1	5'-phosphate
modified base	t-1	modified thymidine
modified base	t-11	3'-deoxy
modified base	t-11	3'-substituted

SEQ 1 tattccgtca t
 ===== =
 HITS AT: 1-11

****RELATED SEQUENCES AVAILABLE WITH SEQLINK****

MF Unspecified
 CI MAN
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 1 REFERENCES IN FILE CA (1962 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:331677

L17 ANSWER 22 OF 27 REGISTRY COPYRIGHT 2003 ACS
 RN 367985-18-0 REGISTRY
 CN Peptide nucleic acid, ([5'-[[[(6-aminoethyl)oxy]hydroxyphosphinyl]oxy]-5'-deamino]T-A-T-T-C-C-G-T-C-A-T)-[6-(phosphonooxy)ethyl]NH (9CI)
 (CA INDEX NAME)
 FS NUCLEIC ACID SEQUENCE
 SQL 11
 NA 2 a 3 c 1 g 5 t
 NTE modified

type	location	description
modified base	t-1	5'-ester
modified base	t-1	modified thymidine
modified base	t-11	3'-deoxy
modified base	t-11	3'-substituted

SEQ 1 tattccgtca t
 ===== =
 HITS AT: 1-11

****RELATED SEQUENCES AVAILABLE WITH SEQLINK****

MF Unspecified
 CI MAN
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 1 REFERENCES IN FILE CA (1962 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:331677

L17 ANSWER 23 OF 27 REGISTRY COPYRIGHT 2003 ACS
 RN 367985-17-9 REGISTRY
 CN Peptide nucleic acid, (acetyl-T-A-T-T-C-C-G-T-C-A-T)-[6-(phosphonooxy)ethyl]NH (9CI) (CA INDEX NAME)

FS NUCLEIC ACID SEQUENCE
 SQL 11
 NA 2 a 3 c 1 g 5 t
 NTE modified

type	location	description
modified base	t-1	5'-substituted
modified base	t-11	3'-deoxy
modified base	t-11	3'-substituted

SEQ 1 tattccgtca t
 =====
 HITS AT: 1-11

****RELATED SEQUENCES AVAILABLE WITH SEQLINK****

MF Unspecified
 CI MAN
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 1 REFERENCES IN FILE CA (1962 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:331677

L17 ANSWER 24 OF 27 REGISTRY COPYRIGHT 2003 ACS
 RN 201099-10-7 REGISTRY
 CN Peptide nucleic acid, (H-T-A-T-T-C-C-G-T-C-A-T-C-G-C-T-C-C-T-C-A)-Lys-NH2 (9CI) (CA INDEX NAME)
 FS NUCLEIC ACID SEQUENCE
 SQL 20
 NA 3 a 8 c 2 g 7 t
 NTE modified

type	location	description
modified base	a-20	3'-deoxy
modified base	a-20	3'-substituted

SEQ 1 tattccgtca tcgctcctca
 =====
 HITS AT: 1-11

****RELATED SEQUENCES AVAILABLE WITH SEQLINK****

MF Unspecified
 CI MAN
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 1 REFERENCES IN FILE CA (1962 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 128:102346

L17 ANSWER 25 OF 27 REGISTRY COPYRIGHT 2003 ACS
 RN 186050-51-1 REGISTRY
 CN DNA, d(T-A-T-T-C-C-G-T-C-A-T), complex with peptide nucleic acid (dA-dT-dG-(5'-deamino-5'-oxy)A-C-G-G-A-A-T-A)-(6-hydroxyhexyl)NH (1:1) (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Deoxyribonucleic acid, d(T-A-T-T-C-C-G-T-C-A-T), complex with peptide nucleic acid (dA-dT-dG-(5'-deamino-5'-oxy)A-C-G-G-A-A-T-A)-(6-

hydroxyhexyl)NH (1:1)
 CN Peptide nucleic acid, (dA-dT-dG-(5'-deamino-5'-oxy)A-C-G-G-A-A-T-A)-(6-hydroxyhexyl)NH, complex with DNA d(T-A-T-T-C-C-G-T-C-A-T) (1:1) (9CI)
 FS NUCLEIC ACID SEQUENCE
 SQL 22,11,11
 NA 7 a 4 c 4 g 7 t
 NTE multistranded (2)
 modified

type	location	description
modified base	a-11	3'-deoxy
modified base	a-11	3'-substituted
DNA-containing	a-1	da
DNA-containing	t-2	dt
DNA-containing	g-3	dg

SEQ 1 atgacggaat a

SEQ 1 tattccgtca t
 ===== =

HITS AT: 1-11

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF Unspecified

CI MAN

SR CA

LC STN Files: CA, CAPLUS

2 REFERENCES IN FILE CA (1962 TO DATE)

2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 127:2136

REFERENCE 2: 126:141081

L17 ANSWER 26 OF 27 REGISTRY COPYRIGHT 2003 ACS

RN 162003-57-8 REGISTRY

CN Peptide nucleic acid, (H-T-A-T-T-C-C-G-T-C-A-T-C-G-C-T-C-C-T-C-A)-OH (9CI) (CA INDEX NAME)

FS NUCLEIC ACID SEQUENCE

SQL 20

NA 3 a 8 c 2 g 7 t

SEQ 1 tattccgtca tcgctcctca
 ===== =

HITS AT: 1-11

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF Unspecified

CI MAN

SR CA

LC STN Files: CA, CAPLUS

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 122:308057

L17 ANSWER 27 OF 27 REGISTRY COPYRIGHT 2003 ACS

RN 162003-37-4 REGISTRY

CN Peptide nucleic acid, (H-C-T-T-A-T-A-T-T-C-C-G-T-C-A-T-C-G-C-T-C)-OH (9CI) (CA INDEX NAME)

FS NUCLEIC ACID SEQUENCE
 SQL 20
 NA 3 a 7 c 2 g 8 t
 NTE

type	location		description
modified base	c-1		modified cytidine
modified base	t-2		modified thymidine
modified base	t-3		modified thymidine
modified base	a-4		modified adenosine
modified base	t-5		modified thymidine
modified base	a-6		modified adenosine
modified base	t-7		modified thymidine
modified base	t-8		modified thymidine
modified base	c-9		modified cytidine
modified base	c-10		modified cytidine
modified base	g-11		modified guanosine
modified base	t-12		modified thymidine
modified base	c-13		modified cytidine
modified base	a-14		modified adenosine
modified base	t-15		modified thymidine
modified base	c-16		modified cytidine
modified base	g-17		modified guanosine
modified base	c-18		modified cytidine
modified base	t-19		modified thymidine
modified base	c-20		modified cytidine
uncommon link	c-1	- t-2	unavailable
uncommon link	t-2	- t-3	unavailable
uncommon link	t-3	- a-4	unavailable
uncommon link	a-4	- t-5	unavailable
uncommon link	t-5	- a-6	unavailable
uncommon link	a-6	- t-7	unavailable
uncommon link	t-7	- t-8	unavailable
uncommon link	t-8	- c-9	unavailable
uncommon link	c-9	- c-10	unavailable
uncommon link	c-10	- g-11	unavailable
uncommon link	g-11	- t-12	unavailable
uncommon link	t-12	- c-13	unavailable
uncommon link	c-13	- a-14	unavailable
uncommon link	a-14	- t-15	unavailable
uncommon link	t-15	- c-16	unavailable
uncommon link	c-16	- g-17	unavailable
uncommon link	g-17	- c-18	unavailable
uncommon link	c-18	- t-19	unavailable
uncommon link	t-19	- c-20	unavailable

SEQ 1 cttatattcc gtcacgcgc

=====

HITS AT: 5-15

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF Unspecified

CI MAN

SR CA

LC STN Files: CA, CAPLUS

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 122:308057

=> d his

(FILE 'HOME' ENTERED AT 10:34:55 ON 13 APR 2003)
SET COST OFF

FILE 'REGISTRY' ENTERED AT 10:35:03 ON 13 APR 2003
E TATTCCGTCAT/SQEN

L1 129 S E3
L2 24 S L1 AND PEPTIDE AND NUCLEIC ACID
L3 1961 S TATTCCGTCAT/SQSN
L4 27 S L3 AND PEPTIDE AND NUCLEIC ACID
L5 3 S L4 NOT L2
L6 27 S L2,L4
L7 1934 S L1,L3 NOT L6

FILE 'HCAPLUS' ENTERED AT 10:39:49 ON 13 APR 2003

L8 6 S L6
L9 409 S L7
L10 6 S L8,L9 AND PNA
L11 7 S L8,L9 AND PEPTIDE(S)NUCLEIC ACID
L12 9 S L10,L11
SEL HIT RN

FILE 'REGISTRY' ENTERED AT 10:40:41 ON 13 APR 2003

L13 33 S E1-E33
L14 6 S L13 NOT L6

FILE 'HCAPLUS' ENTERED AT 10:44:12 ON 13 APR 2003

FILE 'REGISTRY' ENTERED AT 10:44:19 ON 13 APR 2003

L15 6 S L14 AND L6,L7
L16 3 S L15 AND SQL<=50
L17 27 S L13 AND L6